REMARKS

Following this amendment claims 51-75 and 82-98 are pending in the application and are presented for reconsideration and further examination. By the foregoing amendments, claims 51, 63, 72, 83, and 89 have been amended. No new matter has been added.

Rejections under §103

In the Office Action claims 51-55, 63-67, 75, 82-90 and 98 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kordsmeyer (U.S. patent no. 6,963,751) in view of Van Grinsven (U.S. pub. 20020015985). Claims 56 and 68 were rejected in view of the foregoing combination and further in view of Sengodan (U.S. patent no. 6,918,034). Claims 57-62 and 68-74 were rejected in view of the foregoing combination and further in view of Caronni (U.S. patent no. 6,970,941). Claims 91 and 98 were rejected in view of the foregoing combination and further in view of Hathaway (U.S. pub. 20020020126677). Finally, claims 95 and 96 were rejected in view of the foregoing combination and further in view of Hathaway and Payne, III (U.S. pub. 20060062250). Applicant submits that all of the pending claims are allowable over the references of record. Though the following remarks are primarily directed to independent claims 51, 63, 83 and 89, they apply with equal force to each of the claims which depend therefrom.

Kordsmeyer describes a system in which service data units are packed and fragmented into PDUs. The PDUs have a fixed size (which does not change) which is predetermined by the radio interface protocol. (Kordsmeyer, col. 2, lines 42-47 ("The protocol data units are adapted to the DECT radio interface protocol, especially to the DECT-related TDMA structure and to the various types of transmission for transmitting service data . . ."); and see, col. 2, line 62 - col. 3 line 4, and col. 7, line 59 - col. 8, line 1). Kordsmeyer identifies inefficient use of the data fields of the fixed size PDUs where each PDU only contains one SDU or one fragment of an SDU as a problem he is addressing. "[T]he shaded area of the data field DAF in FIG. 1 remains unused for the transmission of service data. Ultimately, this has the result that the radio channel capacity available in accordance with the DECT standard is not optimally utilized. In other words, the bandwidth available in the DECT system for the telecommunication is poorly utilized."

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(Kordsmeyer, col. 3, lines 52-57). His solution is to use fields in the PDU as defined in the preexisting radio interface protocol to permit multiple SDUs or SDU fragments to be placed into a single PDU. Fundamentally, Kordsmeyer describes a modification to the existing DECT protocol to improve its bandwidth usage efficiency. At its broadest, Kordsmeyer characterizes its solution thusly: "This object is achieved by a method for transmitting service data in telecommunication systems with wireless telecommunication based on a predefined radio interface protocol between telecommunication devices." (Kordsmeyer, col. 6, lines 38-41, emphasis added).

Van Grinsven describes modifying the approach described in the DAVIC (Digital Audio Video Council) 1.1 standard to also accommodate data formats besides ATM, for example, "STM, which requires fixed length data words having a repetition rate of 125 us, or variable length data formats such as Ethernet packets or IP (Internet Protocol) packets." (Van Grinsven, paragraph [0006]). Van Grinsven describes this system as having three different types of PDUs which are assembled into frames for transmission. One of the types of PDUs (the type described the least in Van Grinsven) is described as being a "variable length cell PDU." (See, Van Grinsven, paragraph [0041]). This variable length PDU is described as having its payload size adjusted to match the size of the variable length cell it will transport. The maximum size is 143 bytes. Cells larger than 143 bytes are fragmented. (See, Van Grinsven, paragraph [0042]). Therefore, Van Grinsven describes selecting the size of the PDU based upon the size of the incoming cell (the cell to be transported) unless the size of the cell exceeds the maximum size (143 bytes), in which case the cell is fragmented and the PDUs for each of the fragments are selected to be the size of the fragments (again, with a size limit of 143 bytes). Van Grinsven does not describe setting the length of the PDU based on bandwidth allocated to the respective connection in a current frame by the communication processor, as claimed. In addition Van Grinsven does not provide any teaching or description of the fragmenting process.

The references cannot properly be combined.

The modification proposed to Kordsmeyer in the office action would render it unsatisfactory for its intended purpose. It would also change the principle of operation of

Kordsmeyer. Placing a PDU with a length that varies (as described by Van Grinsven) into the system of Kordsmeyer would prevent the system of Kordsmeyer from working with the predefined radio interface protocol. It would not improve the DECT protocol, it would fundamentally alter it and require a new protocol.

<u>The references do not teach or suggest every claimed element.</u>

The references fail to teach or suggest every element of the claims. For example, the references do not teach or suggest the limitation of "establishing a length for the protocol data unit based on the bandwidth allocated to the specified connection," (amended claim 51; "establishing a length for the protocol data unit based on bandwidth allocated to the specified connection in a current frame", amended claim 63; "the length of the PDU is established in conjunction with the bandwidth amount allocated to the specified connection in a current frame", amended claim 83; and "establishing a length for a protocol data unit based on bandwidth currently allocated to the connection in a current frame" amended claim 89). In the office action it was asserted that the length of the PDU in Van Grinsven is based upon the amount of bandwidth allocated to a connection. The office action asserts that the size of the cell being transported in the PDU is "equivalent to the 'bandwidth currently allocated to a connection in a current frame based [sic] one or more communication parameters', as claimed." No support in the references can be found for that assertion. There is no indication in Van Grinsven that the size of a single cell (for example, an Ethernet packet or a TCP/IP packet in the case of the variable length cell PDU) correlates to the bandwidth allocated to the connection to which that cell is being sent. There is also no support in Van Grinsven for the underlying assumption that the connection is being sent only one cell. To the contrary, there is description in the fixed PDU examples of Van Grinsven of a single cell not correlating to the amount of bandwidth allocated to a connection. (See, for example, Van Grinsven, paragraph [0032] which describes sending multiple packets to a connection).

Further, the cited references do not teach or suggest establishing a length for the protocol data unit based on the allocated bandwidth where bandwidth is allocated as specified in the claims. For Example Claim 51 recites "allocating bandwidth for the specified connection <u>based,</u>

at least in part, on the priority and type of the connection[.]" Emphasis added. Claim 63 recites that "bandwidth allocated to the specified connection is established based on one or more communication parameters, including the type of the specified connection." Claim 83 recites "the bandwidth amount being established frame-by-frame based on one or more communication parameters associated with the specified connection, including the priority of the specified connection[.]" Emphasis added. Claim 89 recites that "the bandwidth allocated to the connection is established based, at least in part, on the priority associated with the specified connection[.]" Emphasis added. The cited references do not teach bandwidth allocation as claimed or the combination of selecting PDU length based on bandwidth allocated in this manner. For at least these additional reasons, Applicant respectfully submits that the claims are allowable over the cited references.

Claims 95 and 96

Claims 95 and 96 were rejected in view of the combination of Kordsmeyer, Van Grinsven and Payne. Payne has a publication date of March 23, 2006 and a filing date of August 29, 2005. The present application was filed on January 15, 2002. Payne is not available as prior art against the present application. Therefore, applicants request that this rejection be withdrawn.

In view of the foregoing, applicant respectfully submits that each of the pending claims is in condition for allowance.

CONCLUSION

The Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Respectfully submitted,

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